

WE CLAIM:

1. A bicycle comprising:

a bicycle body frame,

a swing arm structure,

a rear wheel,

a transmission, and

an output pulley,

wherein the bicycle body frame further comprises a pivot section,

wherein the transmission further comprises a drive rotation body, a crankshaft, a plurality of gear-change rotation bodies, a gear shifting mechanism, an output axis, and a gear-change pulley, and an operation rotation body alternatively selected from the plurality of gear-change bodies by the gear shifting mechanism,

wherein the swing arm structure swings about the pivot section, and the swing arm structure supports the rear wheel, wherein the drive rotation body is rotatably driven by the crankshaft, and the drive rotation body is drive-coupled to the operation rotation body by the gear-change pulley, wherein the output axis is rotatable and is drive-coupled to the plurality of gear-change rotation bodies, wherein the output axis is drive-coupled to the rear wheel by the output pulley.

2. The bicycle of claim 1, wherein the pivot section is located within the gear-change pulley when viewed from the side.

3. The bicycle of claim 1, wherein the pivot section comprises a single member passing through the transmission.

4. The bicycle of claim 1, further comprising a transmission case, wherein the transmission case is attached to the bicycle body frame and encloses the transmission.

5. The bicycle of claim 4, wherein the transmission case is a resin.

6. The bicycle of claim 1, wherein the swing arm structure comprises dual arms connecting to the rear wheel.
7. The bicycle of claim 1, wherein the gear-change pulley is a chain.
8. The bicycle of claim 1, wherein the output pulley is a chain.
9. A bicycle comprising:
 - a bicycle body frame,
 - a swing arm structure,
 - a rear wheel,
 - a crankshaft, and
 - means for transmitting power from the crankshaft to the rear wheel.
10. The bicycle of claim 9, wherein the means for transmitting power comprises:
 - a transmission, and
 - an output pulley.
11. The bicycle of claim 10, wherein the transmission comprises:
 - a drive rotation body,
 - a plurality of gear change rotation bodies,
 - an output axis,
 - a gear shifting mechanism, and
 - a gear change pulley connected to the drive rotation body and the plurality of gear change rotation bodies,

wherein only one of the plurality of gear change rotation bodies is directly engaged to gear change pulley at a particular time, wherein the gear shifting mechanism changes which gear change rotation body is directly engaged to the gear change pulley.

12. The bicycle of claim 11, wherein the swing arm structure is connected to the bicycle body frame at a pivot axis, wherein the pivot axis passes through the area defined by the gear change pulley.
13. The bicycle of claim 10, further comprising a transmission case, wherein the transmission case is attached to the bicycle body frame and encloses the transmission.
14. The bicycle of claim 13, wherein the transmission case is a resin.
15. The bicycle of claim 9, wherein the swing arm structure comprises dual arms connecting to the rear wheel.
16. The bicycle of claim 11, wherein the gear-change pulley is a chain.